

IN THE CLAIMS:

1. (Currently Amended) A method for operating a shelf comprising:

providing one or more shelves and one or more mechanically coupled and longitudinally adjustable associated storage and retrieval units for retrieving and introducing containers[[,]] ~~or trays or the like~~ from or into said one or more shelves, each of said shelves  
5 comprising at least two independent shelf units, each of said at least two independent shelf  
units comprising a plurality of shelf levels, said shelf levels defining a height range of said one  
or more shelves;

providing a vertical elevator;

providing a conveying means;

10 transporting said containers to be introduced via said conveying means;

operating at least one of said storage and retrieval units at at least one of said ~~providing~~  
~~height areas defined between one shelf and another shelf having a plurality of shelf levels, said~~  
~~shelf levels being arranged one on top of another and operating as independent shelf units; and~~

vertically transferring said at least one of said storage and retrieval units from one ~~or~~  
15 ~~more of said~~ independent shelf units ~~[[into]]~~ to another one of said ~~one or more other~~  
independent shelf units of the same shelf or of another shelf via said vertical elevator.

2. (Previously Presented) A method in accordance with claim 1, wherein said storage and retrieval unit is transferred into another shelf unit, which does not yet have a storage and retrieval unit of the same type.

3. (Previously Presented) A method in accordance with claim 1, wherein said storage and retrieval unit is transported vertically by means of a vertical elevator from one said shelf unit into another said shelf unit.

4. (Canceled)

5. (Previously Presented) A method in accordance with claim 4, wherein said horizontal path is displaced vertically.

6. (Previously Presented) A method in accordance with claim 1, wherein said storage and retrieval unit, which is vertically extensible, is brought into a compact, flat, withdrawn position before transfer.

7. (Previously Presented) A method in accordance with claim 1, wherein before transfer, said storage and retrieval unit is equipped with containers or trays, which are transferred together with said storage and retrieval unit and are introduced or released after transferring said storage and retrieval unit in the other shelf unit.

8. (Currently Amended) A method in accordance with claim 1, wherein said storage and retrieval unit is equipped with said containers or trays in another shelf unit after transfer, said containers or trays ~~to be introduced being transported by means of separate conveying~~

means and being taken over by said storage and retrieval unit for introduction into another shelf unit or released in another shelf unit only, said conveying means being located on one side of said one or more shelves, said vertical elevator being located on another side of said one or more shelves.

9. (Currently Amended) A storage and retrieval system for operating a shelf, the system ~~for carrying out the method in accordance with claim 1~~ comprising:

one or more shelves, each of said shelves comprising at least two independent shelf units, each of said two independent shelf units comprising a plurality of shelf levels, said plurality of shelf levels defining a height area of said one or more shelves;

one or more mechanically coupled and longitudinally adjustable storage and retrieval units for retrieving and introducing containers[[,]] ~~or trays or the like~~ from or into one or more shelves, at least one of said storage and retrieval units operating at at least one of said independent shelf units;

a height area of one or more shelves having a plurality of shelf levels arranged one on top of another; said plurality of shelf levels operating as an independent shelf unit (I, II, III, IV) by means of at least one mechanically coupled and longitudinally adjustable storage and retrieval unit;

a conveying means for transporting containers or trays; and

a transferring device having at least one vertical elevator, said at least one vertical elevator ~~[[for]]~~ transferring said at least one of said storage and retrieval ~~[[unit]]~~ units from one

~~or more of said shelf units into one or more other to another one of said shelf units of the same shelf or of another shelf.~~

10. (Previously Presented) A storage and retrieval system in accordance with claim 9, wherein said vertical elevator is arranged in an area of a longitudinal end of a shelf.

11 - 12. (Canceled)

13. (Previously Presented) A storage and retrieval system in accordance with claim 9, wherein said vertical elevator comprises an elevator cage for receiving a storage and retrieval unit, said cage being vertically displaced between at least two said shelf units arranged one on top of another and positioned at a level of the shelf units.

14. (Currently Amended) A storage and retrieval system in accordance with claim [[9]] ~~10, further comprising at least another transport elevator provided for separate transport of containers or trays; wherein said elevator being conveying means is~~ located at [[one]] ~~another~~ longitudinal end of the shelf.

15. (Currently Amended) A storage and retrieval system in accordance with claim 9, wherein ~~a horizontal path is provided for horizontally displacing~~ said storage and retrieval unit is displaced along a horizontal path such that said storage and retrieval unit moves between

the shelves from one said shelf to another said shelf in a height position located at a spaced location from a shelf bottom ~~or the horizontal path can be displaced horizontally together with the storage and retrieval unit.~~

16. (Currently Amended) A storage and retrieval system in accordance with claim 15, wherein said height position of said storage and retrieval unit is adjustable along said horizontal path ~~is adjustable in height.~~

17. (Previously Presented) A storage and retrieval system in accordance with claim 9, wherein said storage and retrieval unit has a lower and/or upper longitudinal chassis displaceable along a shelf front in a nontilting manner in fixed horizontal rails in levels of said shelf units.

18. (Previously Presented) A storage and retrieval system in accordance with claim 17, wherein said storage and retrieval unit having a vertical mast with an upper and lower chassis, wherein a height-adjustable load receiving means for containers or trays is provided along the vertical mast.

19. (Previously Presented) A storage and retrieval system in accordance with claim 18, wherein said vertical mast has an articulated joint permitting deflection of the mast in a direction of longitudinal displacement, the articulated joint being provided in an area of the

upper chassis of the storage and retrieval unit.

20. (Previously Presented) A storage and retrieval system in accordance with claim 18, wherein said vertical mast extends over the height of a shelf unit.

21. (Previously Presented) A storage and retrieval system in accordance with claim 9, wherein said storage and retrieval unit, which is vertically extendable, is provided with a height-adjustable lifting table, said storage and retrieval unit being withdrawn into a compact, flat position before a transfer.

22. (New) A method for operating a shelf comprising:

providing a first shelf and a second shelf, said first shelf comprising a pair of first shelf rails, said second shelf comprising a pair of second shelf rails;

providing one or more mechanically coupled and longitudinally adjustable storage and retrieval units for retrieving and introducing containers or trays from or into one or more of said first shelf and said second shelf, each of said first shelf and said second shelf comprising at least two independent shelf units, each of said at least two independent shelf units comprising a plurality of shelf levels, said shelf levels of said at least two independent shelf units of said first shelf defining a height area of said first shelf, said shelf levels of said at least two independent shelf units of said second shelf defining a height area of said second shelf;

providing a vertical elevator comprising a vertical elevator cage, said vertical elevator

cage comprising a pair of elevator rails, said vertical elevator cage being mounted for movement such that said vertical elevator cage moves between said height area of said first shelf and said height area of said second shelf;

15           operating at least one of said storage and retrieval units at at least one of said independent shelf units such that a portion of said at least one of said storage and retrieval units moves to one or more of said shelf levels;

          moving said vertical elevator cage to said first shelf such that said pair of elevator rails are aligned with said first shelf rails;

20           moving said at least one of said storage and retrieval units located on said first shelf to said vertical elevator cage after said vertical elevator cage is moved to said first shelf;

          vertically transferring said at least one of said storage and retrieval units from said first shelf to said second shelf via said vertical elevator cage such that said pair of elevator rails is aligned with said second shelf rails; and

25           moving said at least one of said storage and retrieval units from said vertical elevator cage to said second shelf after said pair of elevator rails are aligned with said second shelf rails.